

**Patent Application  
Attorney Docket No. D/A1651**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor(s): **Robert R. Buckley et al.**

Application No.: **n/a**

Filed: **n/a**

Examiner: **n/a**

Art Unit: **n/a**

Title: **METHOD FOR DOCUMENT VIEWING**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

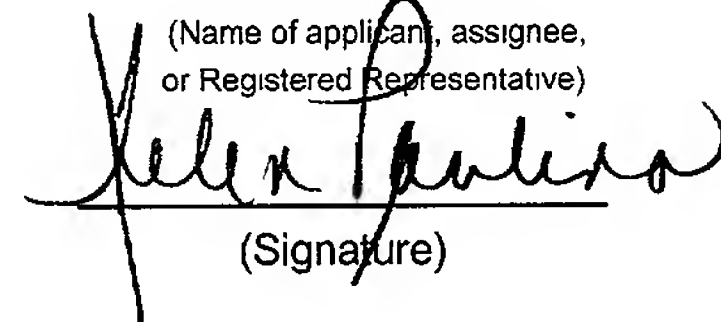
CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D. C. 20231, on

November 9, 2001

**Helen Paulino**

(Name of applicant, assignee,  
or Registered Representative)



(Signature)

November 9, 2001

**PRELIMINARY AMENDMENT**

With reference to the above-listed Patent Application, filed concurrently herewith, please amend the application as follows:

**IN THE SPECIFICATION:**

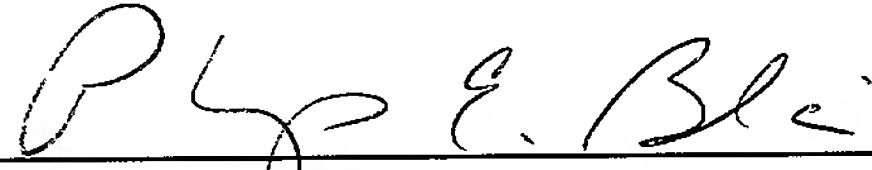
Please delete the following sentence as indicated:

Beginning on page 8, line 24:

--(Note: this protocol could be modeled on the Internet Imaging Protocol (IIP), Version 1.0.5, but I want to be careful not to make a statement here that could be construed as inferring or suggesting that any patents or intellectual property on IIP would also apply to this invention.)--

No additional fee is believed to be required for this amendment. However, the undersigned Xerox Corporation attorney (or agent) hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation, Deposit Account No. 24-0025.

Respectfully submitted,



Philip E. Blair  
Attorney For Applicants  
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PEB/hp  
November 9, 2001  
Xerox Corporation  
Xerox Square 20A  
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**VERSION WITH MARKINGS TO SHOW CHANGES MADE  
IN THE SPECIFICATION**

Please delete the following sentence as indicated:

the server. Figure 3 shows another page of the same document in Figure 2; and Figure 4 shows the resulting displays when the user zooms in on a portion of a page. Note that the zooming is satisfied by additional data, namely resolution levels, in combination with data previously received. After all resolution levels have been received, then subsequent zooming would interpolate the received data.

Since the JPEG 2000 standard supports ROI (Region-of-Interest) coding, some portions of an image can be compressed with more fidelity and higher resolution. In addition, certain regional packets for selected portions of the image can be manipulated in the codestream prior to transmission such that they occur earlier in the codestream and thus are delivered before the arrival of packets for other regions of the image. JPEG 2000 ROI coding can be used in the initial image that the server delivers to the client so that the image bits initially received show more detail in the areas of the page that are determined to be more interesting or significant. The ROI can be defined in several ways: predefined for each page of the document (the ROI or the rules for defining it are predefined), determined from an analysis of the page when the JPEG 2000 image is created, or in response to an attribute in the client request, e.g. "I'm interested in the text more than the images."

Aside from different progressive modes realized by reordering the packets in an existing JPEG 2000 codestream, the present invention preferably would be supported by a client-server communication protocol which supports requests for more resolution, more quality, more color or gray, and others. ~~(Note: this protocol could be modeled on the Internet Imaging Protocol (IIP), Version 1.0.5, but I want to be careful not to make a statement here that could be construed as inferring or suggesting that any patents or intellectual property on IIP would also apply to this invention.)~~ The protocol preferably would support attributes that determine how the page image is compressed, e.g. to support progressive-by-resolution transmission and display. Also, the page image may be compressed so that the highest decomposition level (lowest resolution) corresponds to the display size of the